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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,611	06/04/2001	Koji Kamei	0694-147	4070

7590

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EXAMINER

CIRIC, LJILJANA V

ART UNIT

PAPER NUMBER

3743

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/873,611

Applicant(s)

Kamei et al.

Examiner

Ljiljana V. Cirio

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Dec 2, 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above, claim(s) 6-10, 13, and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 15 is/are rejected.
- 7) ☒ Claim(s) 11 and 12 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Jun 4, 2001 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 6) ☐ Other:

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DETAILED ACTION

Response to Amendment

1. The amendment filed on December 2, 2002 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: newly added claim 15 recites the heat shrinkable tube of the embodiment of Figure 1 as being formed by rolling a heat shrinkable sheet into a cylindrical shape, whereas the originally filed specification only provides support for rolling a heat shrinkable sheet to produce the non-elected species or embodiment of Figures 2 and 3. There is no support in the originally filed specification to produce the heat shrinkable tube corresponding to the elected species or the embodiment of Figure 1.

Applicant is required to cancel the new matter in the reply to this Office Action.

Election/Restriction

2. Applicant's election without traverse of the first species or the embodiment of Figure 1 (readable on claims 1 through 5, 11, 12, and 15) in Paper No. 5 is acknowledged.
3. Claims 6 through 10, 13, and 14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 5.

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Priority

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the thin film formed on at least part of the cylindrical surface as recited in base claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

6. Figure 6A, 6B, and 10 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

7. Claims 11 and 12 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. In particular, the steps recited in method claims 11

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and 12 fail to further limit the heat shrinkable tube that is the subject of apparatus claim 1 from which method claims 11 and 12 depend.

8. Claims 2 through 5 are objected to because of the following informalities: “further comprising” [claim 2, line 2; claim 3, line 2] should be replaced with “further comprises” for improved grammatical correctness; “mixed to” [claim 2, line 3; claim 3, lines 2-3] should be replaced with “mixed with” for proper grammatical correctness; “of a magnetic composition” [claim 5, line 2] should be replaced with “having a magnetic composition” for improved readability; “so that” [claim 5, line 6] should be replaced with “such that” for improved readability; “35-80%” [claim 5, line 7] should be written out as “35% to 80%” or similar for improved readability; “the” should be inserted immediately preceding “magnetic material” [claim 5, line 7] for improved grammatical correctness; “the maximum value” [claim 5, line 8] should be replaced with “a maximum value” for improved readability and clarity; and, “0.1-10 gigahertz (Ghz)” should be replaced with “0.1 gigahertz to 10 gigahertz” or “0.1 Ghz to 10 Ghz” or similar for improved readability. Appropriate correction is required.

Claim Rejections - 35 U.S.C. § 112

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 1 through 5 and 15 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey

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to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Base claim 1 recites the thin film as having "a second phase comprising *an insulator containing at least one element other than Fe, Co, and Ni.*" The originally filed disclosure, however, in addition to failing to fully and clearly explain or describe which elements or materials are encompassed by the limitation "an insulator containing at least one element other than Fe, Co, and Ni," furthermore fails to clearly even specify whether the term "insulator" as used in the claim and as appearing in the disclosure refers to a material which is a heat insulator or to a material which is a magnetic insulator or to a material which is an electrical insulator, thereby resulting in an inadequate description of the claimed subject matter.

Furthermore, newly added claim 15 recites the heat shrinkable tube of the embodiment of Figure 1 as being formed by rolling a heat shrinkable sheet into a cylindrical shape, whereas the originally filed specification only provides support for rolling a heat shrinkable sheet to produce the non-elected species or embodiment of Figures 2 and 3. There is no support in the originally filed specification for producing the heat shrinkable tube corresponding to the elected species or the embodiment of Figure 1 as now newly claimed.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1 through 5 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Base claim 1 recites the thin film as having “a first phase comprising *a first one of Fe, Co, and Ni.*” In view of the disclosure, it appears that the element of the first phase comprises Fe, Co, or Ni. If so, the aforementioned limitation should be rewritten to more clearly state the same. For example, “a first phase comprising a first one of Fe, Co, and Ni” should be replaced with “a first phase comprising a first element, wherein the first element is Fe, Co, or Ni” for improved clarity and readability; this change would not change the apparent intended scope of the claims.

Base claim 1 also recites the thin film as having “a second phase comprising *an insulator containing at least one element other than Fe, Co, and Ni.*” The disclosure, however, in addition to failing to fully and clearly explain or describe which elements or materials are encompassed by the limitation “an insulator containing at least one element other than Fe, Co, and Ni,” furthermore fails to clearly even specify whether the term “insulator” as used in the claim and as appearing in the disclosure refers to a material which is a heat insulator or to a material which is a magnetic insulator or to a material which is an electrical insulator, thereby rendering indefinite claim 1 and all claims depending therefrom with regard to the scope of protection sought.

Similarly to claim 1 as already noted above, claim 2 recites the first phase as further comprising “a second one of Fe, Co, and Ni.” In view of the disclosure, it appears that the second element of the first phase comprises Fe, Co, or Ni, but is different from the first element. If so, the aforementioned limitation should be rewritten to more clearly state the same. For example, “a second one of Fe, Co, and Ni” should be replaced with “a second element, wherein

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the second element is Fe, Co, or Ni, but is different from the first element” for improved clarity and readability; this change would not change the apparent intended scope of the claims.

Again, similarly to claims 1 and 2 as already noted above, claim 3 recites the first phase as further comprising “a third one Fe, Co, and Ni.” In view of the disclosure, it appears that the third element of the first phase comprises Fe, Co, or Ni, but is different from the first and second elements. If so, the aforementioned limitation should be rewritten to more clearly state the same. For example, “a third one Fe, Co, and Ni” should be replaced with “a third element, wherein the third element is Fe, Co, or Ni, but is different from the first and second elements” for improved clarity and readability; this change would not change the apparent intended scope of the claims.

The above is an indicative, but not necessarily an exhaustive, list of 35 U.S.C. 112, second paragraph, problems. Applicant is therefore advised to carefully review all of the claims for additional problems. Correction is required of all of the 35 U.S.C. 112, second paragraph problems, whether or not these were particularly pointed out above.

Claim Rejections - 35 U.S.C. § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. As best can be understood in view of the indefiniteness of the claims, claims 1 through 4 are rejected under 35 U.S.C. 102(b) as being anticipated by *McGaffigan* ('799, *of record*).

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McGaffigan ('799), especially Figures 1 through 6, discloses a heat-shrinkable tube or connector 10 comprising, for example: a tubular member 12 or 16 being shrinkable in response to heat and having a cylindrical surface [column 9, lines 37-39]; a thin film or magnetic particle coating 14 formed on at least part of the cylindrical surface and being made of a magnetic loss material which has a high magnetic loss characteristic, wherein the thin film has a first phase comprising one or more of Fe, Co, or Ni--such as ferrites or compositions thereof including cobalt or nickel--[column 7, lines 46-67; also column 9, lines 55-67, and column 10, lines 1-10], and a second phase comprising an insulator--such as a thermoplastic [column 7, lines 46-67] containing at least one element other than Fe, Co, and Ni. The first phase may be dispersed in a continuous second phase [column 7, lines 46-49].

The reference thus reads on the claims.

15. Alternately and as best can be understood in view of the indefiniteness of the claims, claims 1 through 4 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by *McGaffigan ('521, of record)*.

McGaffigan ('521, of record) discloses a heat-shrinkable tube or connector as shown in any one of Figures 1 through 3 comprising a tubular member being shrinkable in response to heat [column 8, lines 34-68; also, columns 9 and 10 in their entirety] and having a cylindrical surface; a thin film or magnetic particle coating 11 or 22 and 23 or 30 formed on at least part of the cylindrical surface and being made of a magnetic loss material which has a high magnetic loss characteristic, wherein the thin film has a first phase comprising one or more of Fe, Co, or Ni--

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such as ferrites or compositions thereof including cobalt or nickel--[column 11, lines 34-44; also, Table I], and a second phase comprising an insulator--such as a thermoplastic [column 8, lines 34-67] containing at least one element other than Fe, Co, and Ni. The first phase may be dispersed in a continuous second phase [column 7, lines 22-27; also, claim 6]. The heat-shrinkable tube may be formed by rolling a heat-shrinkable sheet into a cylindrical shape [column 9, lines 2-7].

The reference thus reads on the claims.

16. Alternately and as best can be understood in view of the indefiniteness of the claims, claim 15 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over *McGaffigan* ('799, of record).

McGaffigan ('799, of record) discloses a heat-shrinkable tube or connector 10 comprising, for example: a tubular member 12 or 16 being shrinkable in response to heat and having a cylindrical surface [column 9, lines 37-39]; a thin film or magnetic particle coating 14 formed on at least part of the cylindrical surface and being made of a magnetic loss material which has a high magnetic loss characteristic, wherein the thin film has a first phase comprising one or more of Fe, Co, or Ni--such as ferrites or compositions thereof including cobalt or nickel--[column 7, lines 46-67; also column 9, lines 55-67, and column 10, lines 1-10], and a second phase comprising an insulator--such as a thermoplastic [column 7, lines 46-67] containing at least one element other than Fe, Co, and Ni. Claim 15 being a product-by-process claim, absent applicant's showing of an unobvious difference between the heat-shrinkable tube or connector 10

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disclosed by *McGaffigan ('799)* and the heat-shrinkable tube of the instant invention, since the product disclosed by *McGaffigan ('799, of record)* is the same as the product of the instant invention as claimed, the process of making the product as recited in claim 15 is given little or no patentable weight. The reference thus reads on the claim.

Nevertheless, if patentable weight is to be given to the process of making the heat-shrinkable tube of the instant invention as recited in claim 15, while *McGaffigan ('799, of record)* does not specifically disclose the heat-shrinkable tube or connector 10 as being made by rolling a heat-shrinkable sheet into a cylindrical shape, it is nevertheless known in the art to make a film-coated tubular object in a number of ways, such as: by direct deposition of the film directly onto a tubular object, by extrusion of the film into a sleeve-shaped form which is to be fitted around a tubular object, or by taking a sheet of the film or coating material and rolling it into a cylindrical shape to form a tubular object directly. Thus, absent applicant's showing of an unobvious difference between the heat-shrinkable tube or connector 10 disclosed by *McGaffigan ('799)* and the heat-shrinkable tube of the instant invention, it would have been an obvious matter of design choice to make the heat-shrinkable tube or connector 10 of *McGaffigan ('799)* by any number of known processes, ranging from direct deposition of the film directly onto a tubular base, to extrusion of the film into a sleeve-shaped form which is to be fitted around a tubular base, to taking a sheet of the film or coating material and rolling it into a cylindrical shape to form a tubular object directly in order to best utilize the available manufacturing resources. See *In re*

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Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983). Also see In re Brown, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

Claim Rejections - 35 U.S.C. § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. As best can be understood in view of the indefiniteness of the claims, claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over either *McGaffigan* ('799, *of record*) or *McGaffigan* ('521, *of record*) in view of *Hiramoto et al.* (filed January 18, 2000).

Each of *McGaffigan* ('799, *of record*) and *McGaffigan* ('521, *of record*) discloses a heat-shrinkable tube or connector including a high magnetic loss characteristic thin film disposed formed on a cylindrical surface of the tube or tubular member, and each also discloses the thin film as having a first phase comprising one or more of Fe, Co, or Ni--such as ferrites or compositions thereof including cobalt or nickel--[column 7, lines 46-67; also column 9, lines 55-67, and column 10, lines 1-10 of the '799 reference; column 11, lines 34-44; also, Table I of the '521 reference], as noted in greater detail above. Each of the aforementioned references to *McGaffigan* also teaches [see above cited columns and lines] that it is known in the art to vary the Curie temperature and the corresponding maximum values for μ'' [column 14, lines 61-64] of

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ferrites by compounding these with various other substances such as cobalt, manganese, zinc, nickel, lithium, iron, or copper. While the *McGaffigan* references fail to specify the particular M-X-Y composition recited in claim 5, *Hiramoto et al.* does teach making a high-resistance magnetic film comprising: a metallic magnetic material T which corresponds to element M of the instant invention's claimed composition; another element X which corresponds to the element X of the instant invention's claimed composition; and, N_4O_6 which corresponds to the element Y of the instant invention's claimed composition, where the preferred relative amount of the metallic magnetic material T is between 45% and 85% in order to ensure the desired magnetic flux density for the film.

It would thus have obvious to one skilled in the art at the time of invention to modify the composition of the magnetic film of the *McGaffigan* references by, for example, modifying the relative proportion of the magnetic material therein as taught by the *McGaffigan* references and as specified by *Hiramoto et al.* in order ensure that the film has particular desired magnetic properties.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. *Derbyshire* discloses a heat shrinkable sleeve heated by a ferromagnetic member, which in turn is heated by a varying magnetic field.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric, whose telephone number is (703) 308-3925. While

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she works a flexible schedule that varies from day to day and from week to week, Examiner Ciric may generally be reached at the Office during the work week between the hours of 10 a.m. and 6 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett, can be reached on (703) 308-0101. The fax phone number is (703) 305-3463.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

lvc

February 22, 2003



LJILJANA V. CIRIC
PRIMARY EXAMINER
ART UNIT 3743